

Amendments to the Claims

1-6. Canceled.

7. (Presently amended) ~~A device as claimed in claim 1 characterized in that~~
~~the~~ The echo canceller of Claim 13, wherein high-pass filter (8) has a 3-dB cut-off
frequency in the range of approximately 0.1-2 kHz, in particular of about 0.2-1kHz.

8. (Presently amended) ~~A device as claimed in claim 1 characterized in that~~
~~the 3dB cut-off frequency of the~~ The echo canceller of Claim 13, wherein high-pass
filter (8) has a 3-dB cut-off frequency in the range of ~~is greater by approximately a~~
~~factor of 2 to 10, in particular by a factor of approximately 5, than the~~ two to ten times
that of a 3-dB cut-off frequency of the converter (2).

9-12. Canceled..

13. (New) A telephone echo canceller, comprising:

- an input (1) to receive an audio input signal from a remote telephone;
- an output (4) to send an audio output signal to said remote telephone;
- a high pass filter (8) for removing signals lower than a cutoff frequency
from said audio input signal;
- a soft limiter (9) for limiting the amplitude of signals passed through the
high pass filter;
- an echo canceller (53) with a summing point (531) and a linear adaptive
filter (532), and which inputs signals from the soft limiter (9) for a converter (2) and a
loudspeaker, and inputs signals from a microphone and inverse converter (3) for said
summing point (531), and has audio output (4) taken from said summing point (531) after
subtracting an estimated linear echo provided by said linear adaptive filter (532);
- wherein, the combination of the high-pass filter (8) and soft-limiter (9)
substantially eliminate non-linear components from being included in an acoustic echo
(7) from said loudspeaker to said microphone, and thereby enable a simple linear
adaptation and filtering with said linear adaptive filter to substantially remove any
adverse effects of acoustic echo (7) that would otherwise occur.

14. (New) A method of echo canceling in a telephone, comprising:

- removing low frequency (8) signal components from an audio input signal received by an input channel (1) from a remote telephone;
- soft-limiting (9) the amplitude of said audio input signal after said removal of said low frequency signal components, such that non-linear acoustic components will be substantially removed from an echo (7) between a loudspeaker device (2) and a microphone device (3); and
- using only linear adaptation and filtering (532) in an echo canceller (53) connected to the loudspeaker device (2) and microphone device (3) to remove substantially all echoes from an audio output signal at an output (4) directed to said remote telephone.